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Radial Cement Bond Log With VDL / CCL / GR And Cement Map

Company	Anadarko Petroleum Corporation
Well	Pettinger 4NE-18HZ
Field	Wattenberg
County	Weld
State	Colorado

Company Anadarko Petroleum Corporation
Well Pettinger 4NE-18HZ
Field Wattenberg
County Weld State Colorado
Location: API #: 05-123-38021
SHL: SWSW 283'FSL & 1010'FWL
SEC 18 TWP 1N RGE 65W

Other Services
JB/GR
Caliper
Set Plug

Permanent Datum	Ground Level	Elevation 5007'	Elevation
Log Measured From	Kelly Bushing	13' A.P.D.	K.B. 5020'
Drilling Measured From	Kelly Bushing		D.F. 5020'
			G.L. 5007'

Date	21-Mar-2014
Run Number	Two
Depth Driller	12,164'
Depth Logger	7489'
Bottom Logged Interval	7487'
Top Log Interval	Surface
Open Hole Size	8.75"
Type Fluid	Water
Density / Viscosity	8.34
Max. Recorded Temp.	See Caliper Log
Estimated Cement Top	45'
Time Well Ready	10:30
Time Logger on Bottom	11:00
Equipment Number	96
Location	Ft. Morgan
Recorded By	Bruce Miller
Witnessed By	Mr. Dave Peterson

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9.625"	36#	Surface	1189'
Prot. String				
Production String	7.0"	26#	Surface	7628'
Liner	4.5"	11.6#	6587'	12,154'
See Remarks				

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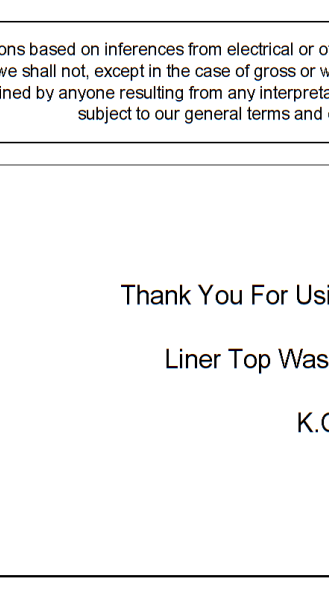
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Thank You For Using Pioneer Energy Services

Liner Top Was Found At 6595' On Log.

K.O.P. @ 6691'



Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		PTS275	2.83	2.75	
WVF3FT WVFCAL WVFS1 WVFS2 WVFS3 WVFS4 WVFS5 WVFS6 WVFS7 WVFS8 WVF5FT	11.86 11.86 11.86 11.86 11.86 11.86 11.86 11.86 11.86 11.86 10.78	RBT-Probe (Base) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
		PTS275	2.83	2.75	
CCL TEMP GR	3.84 3.14 2.30	GCT-GRCCLTEMP (130608) Probe GCT	4.69	2.75	100.00

Dataset: anadarko_pettinger_4ne-18hz_jbgr_log_plug.db: field/well/run2/pass3
Total Length: 19.27 ft
Total Weight: 190.00 lb
O.D. 2.75 in

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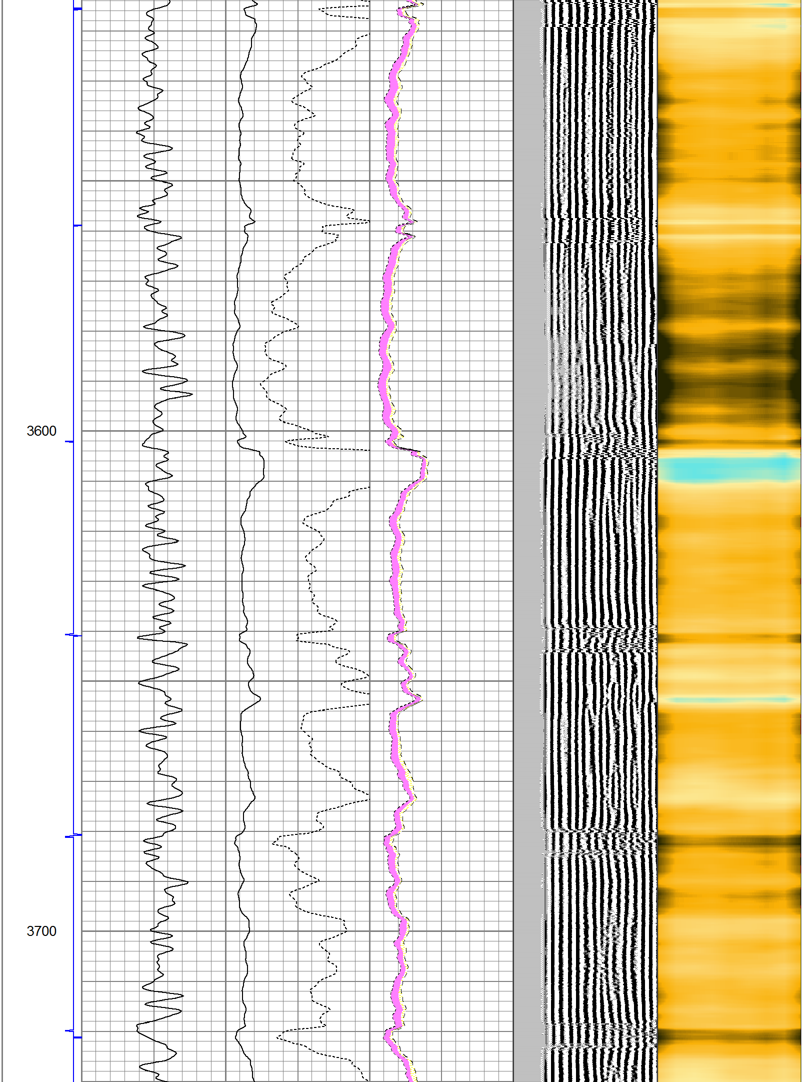
Main Pass

Logged With 2800 PSI Applied At Surface

Database File: anadarko_pettinger_4ne-18hz_jbgr_log_plug.db
Dataset Pathname: run2/pass3
Presentation Format: scbl02
Dataset Creation: Fri Mar 21 10:48:51 2014 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240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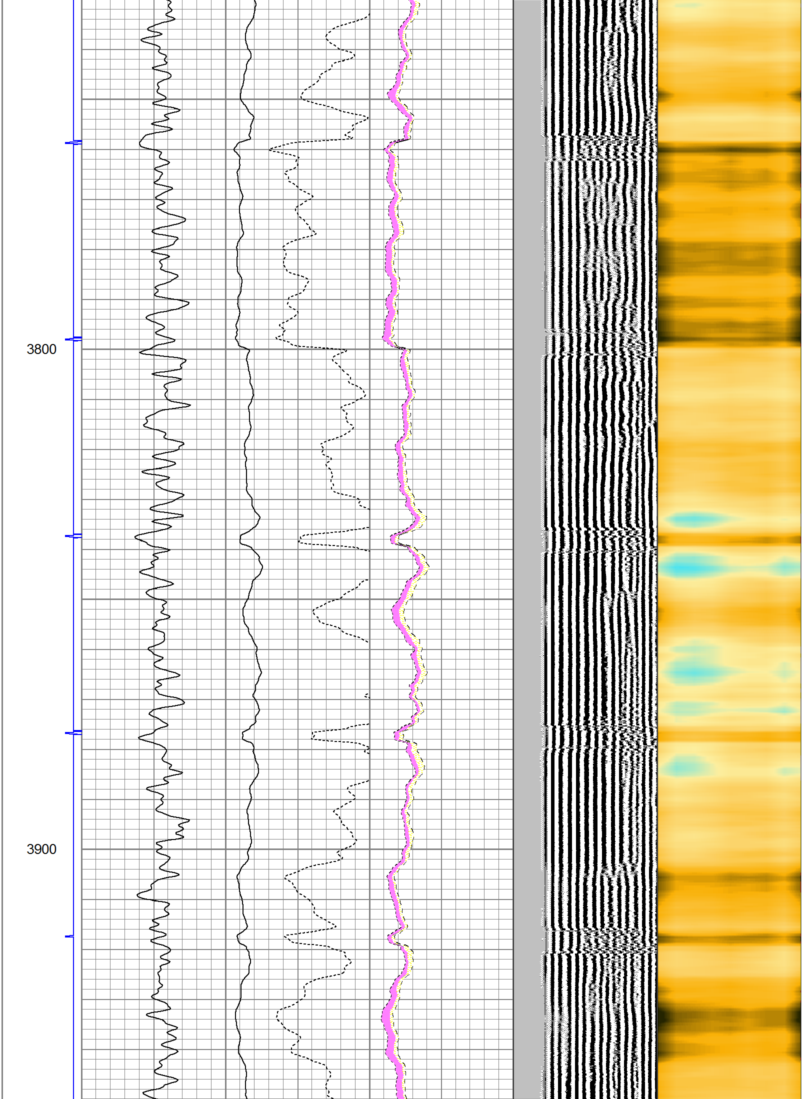
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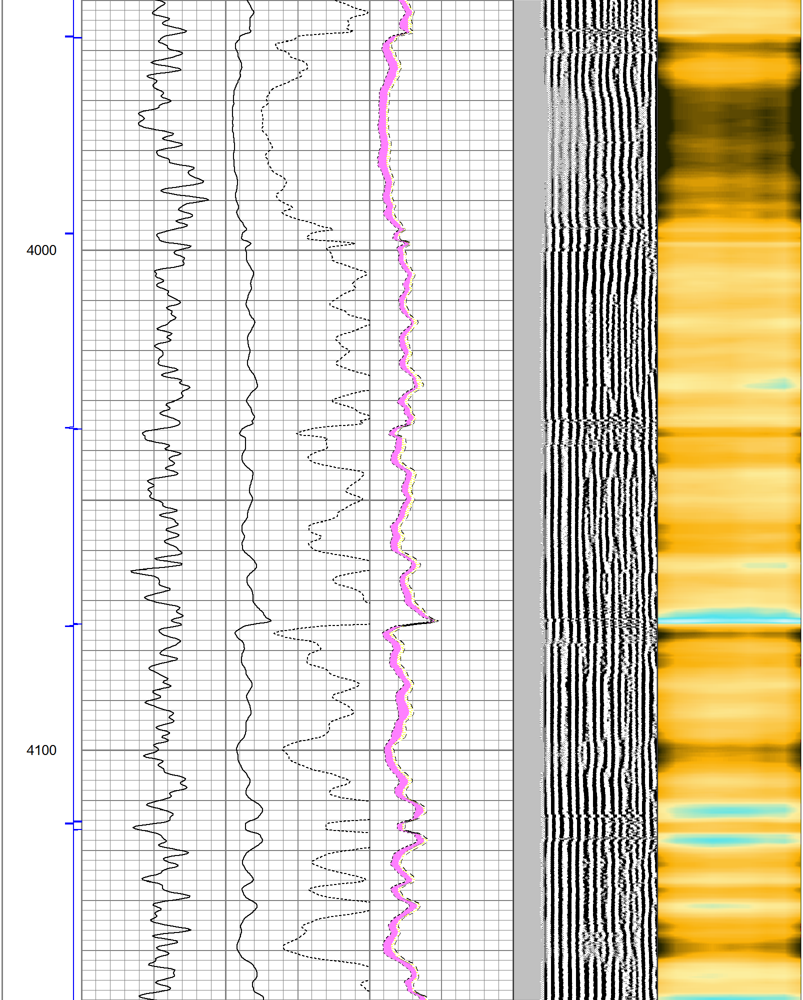
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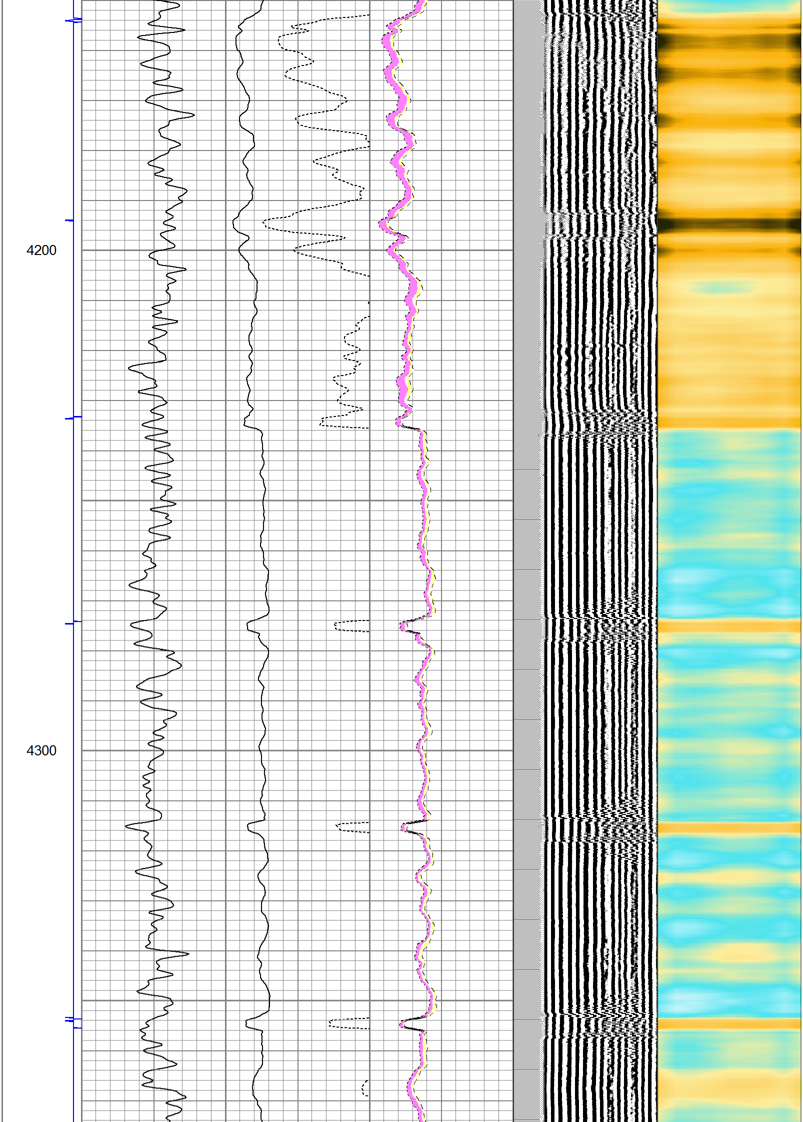
4100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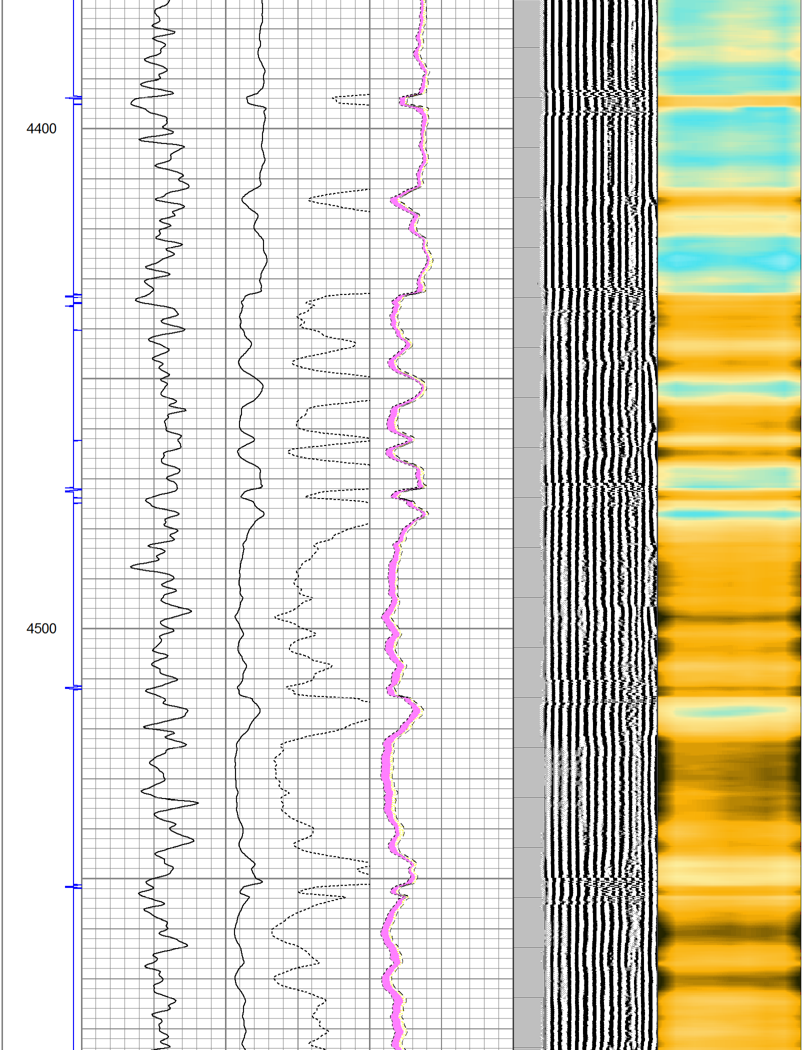
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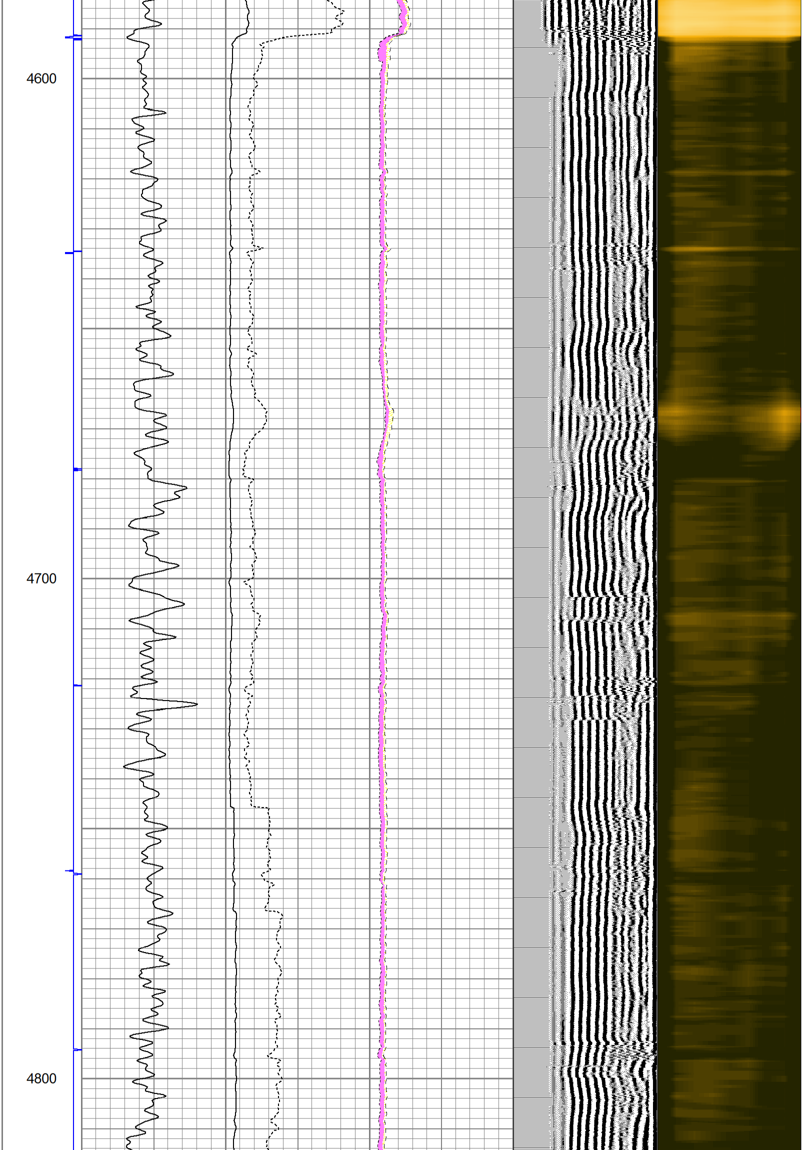
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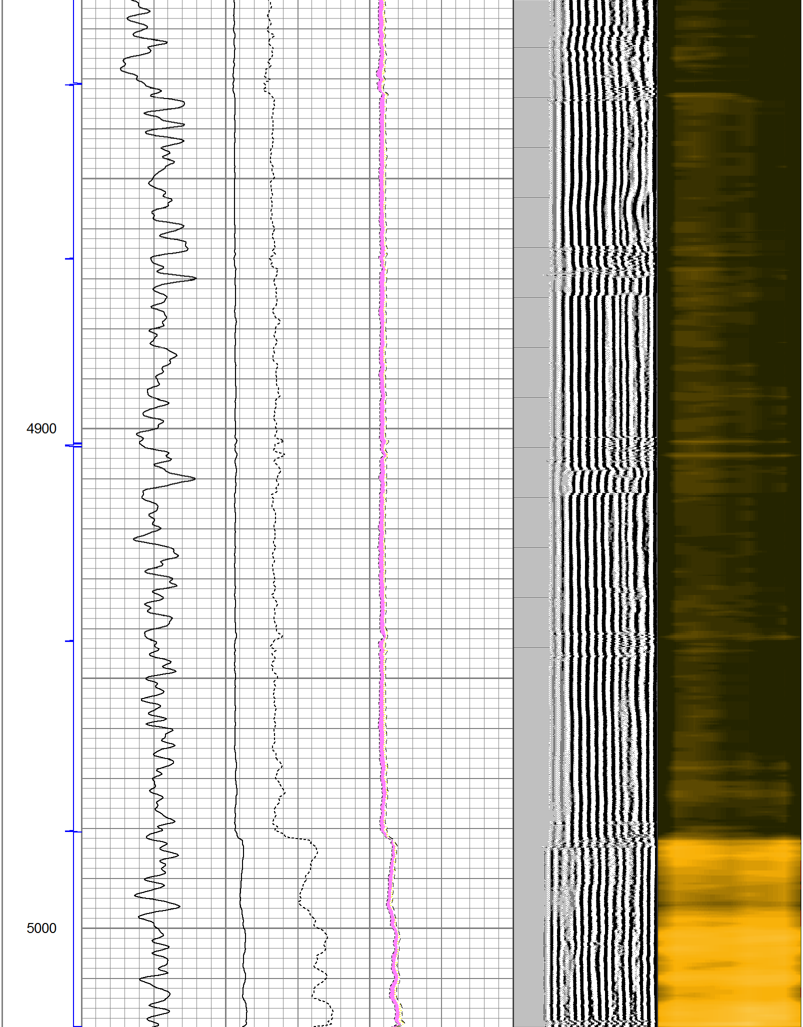
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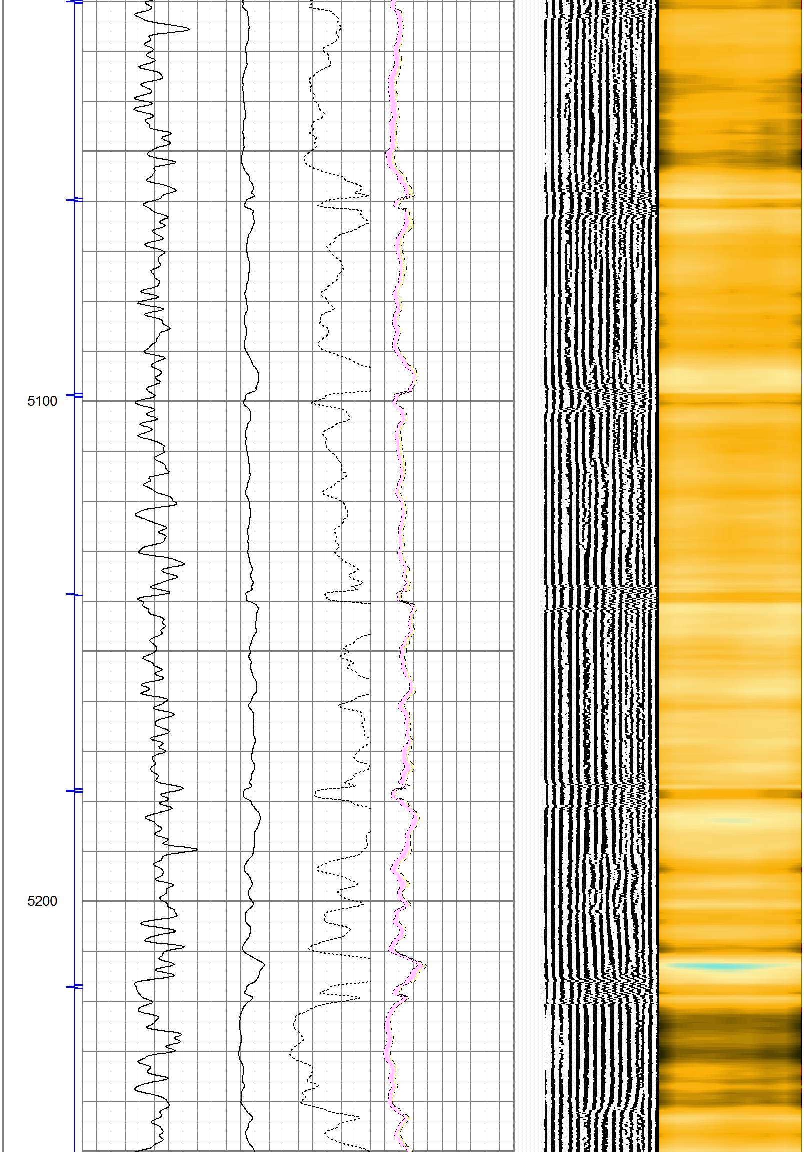
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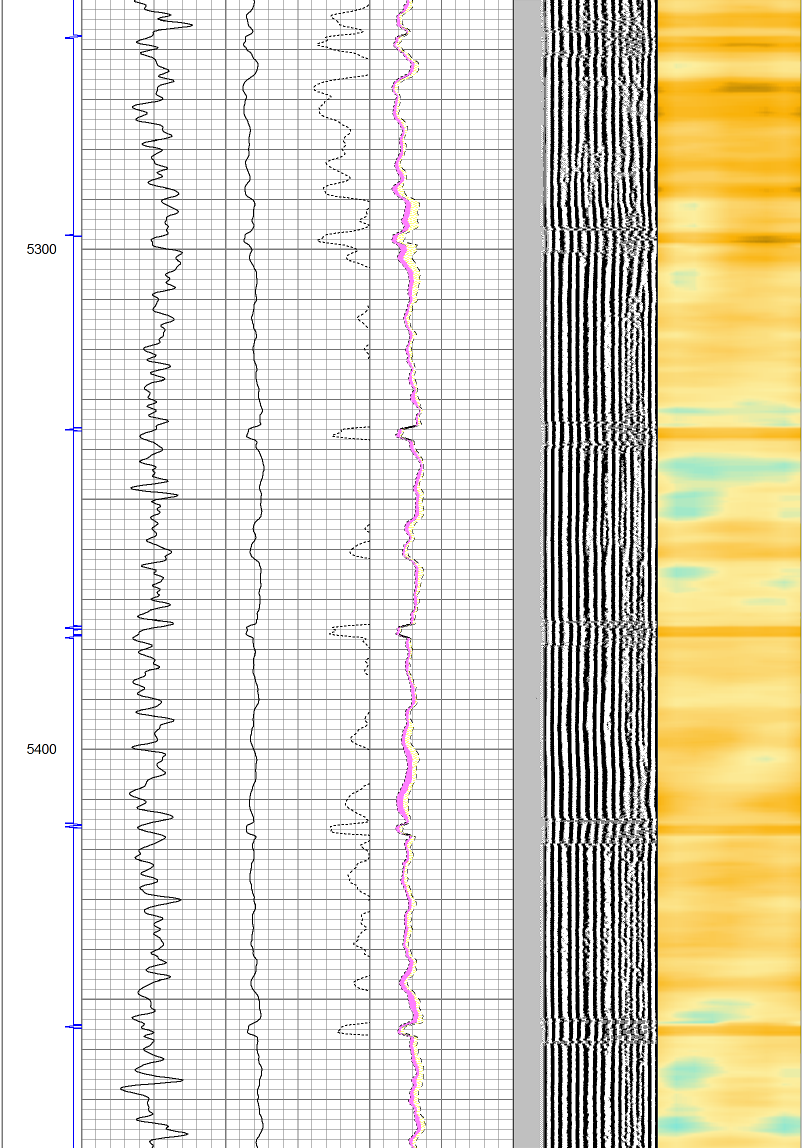
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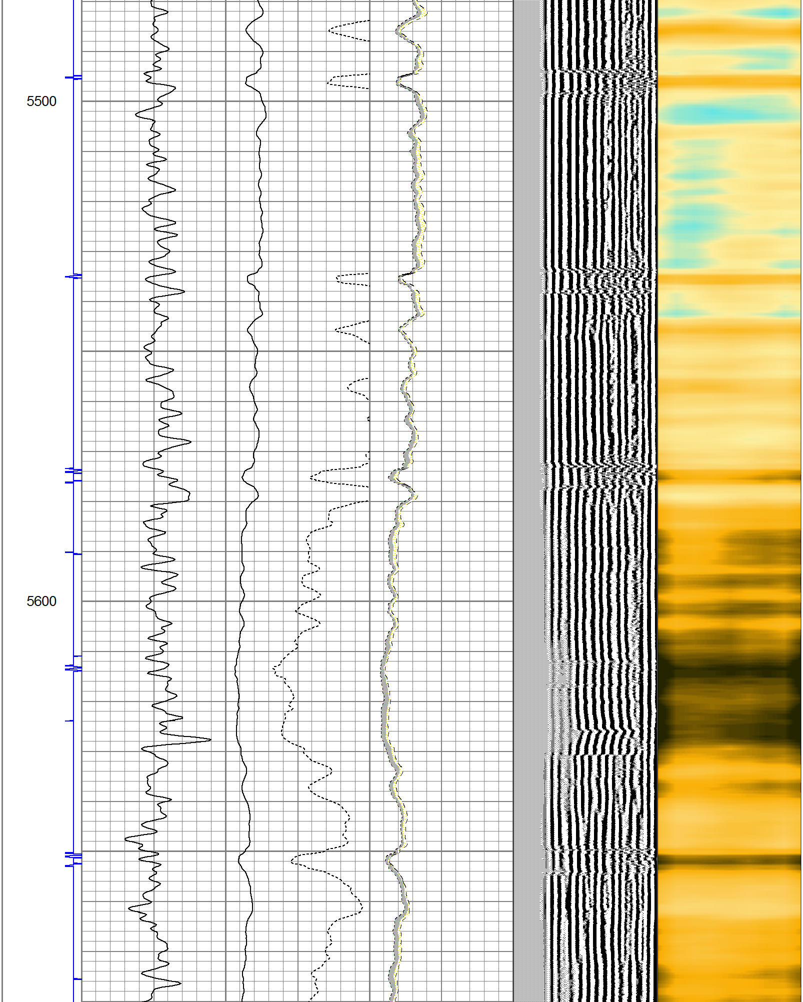
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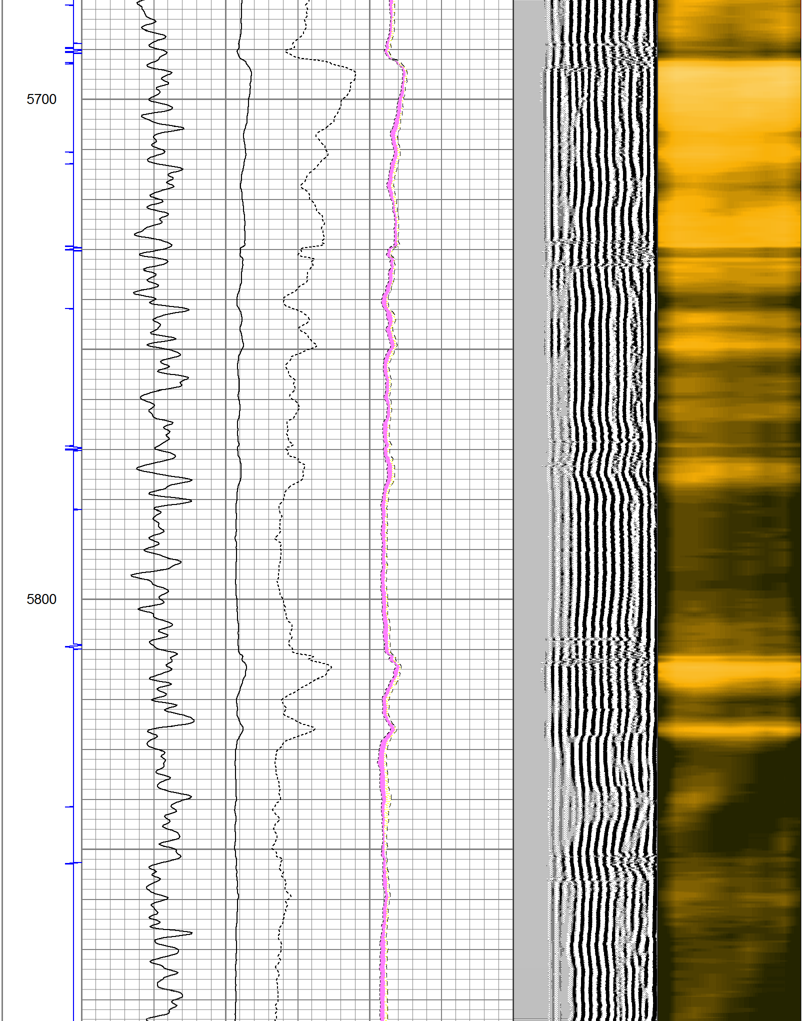
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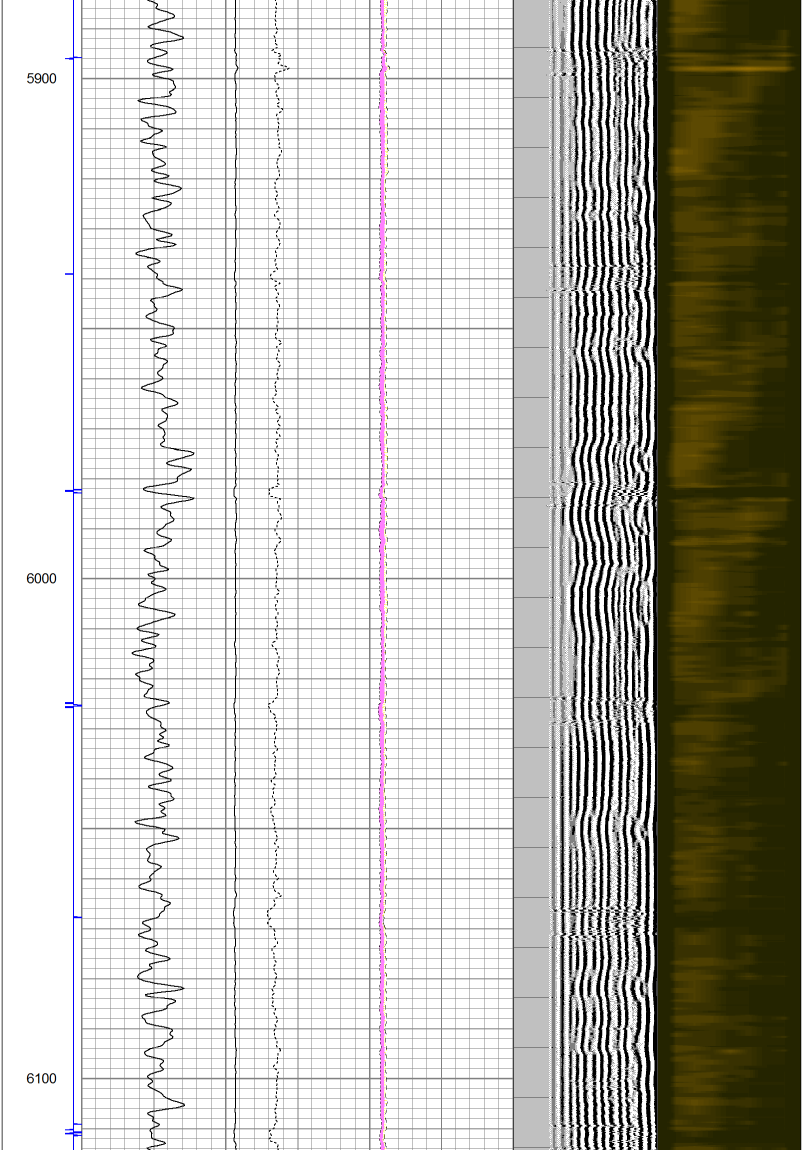
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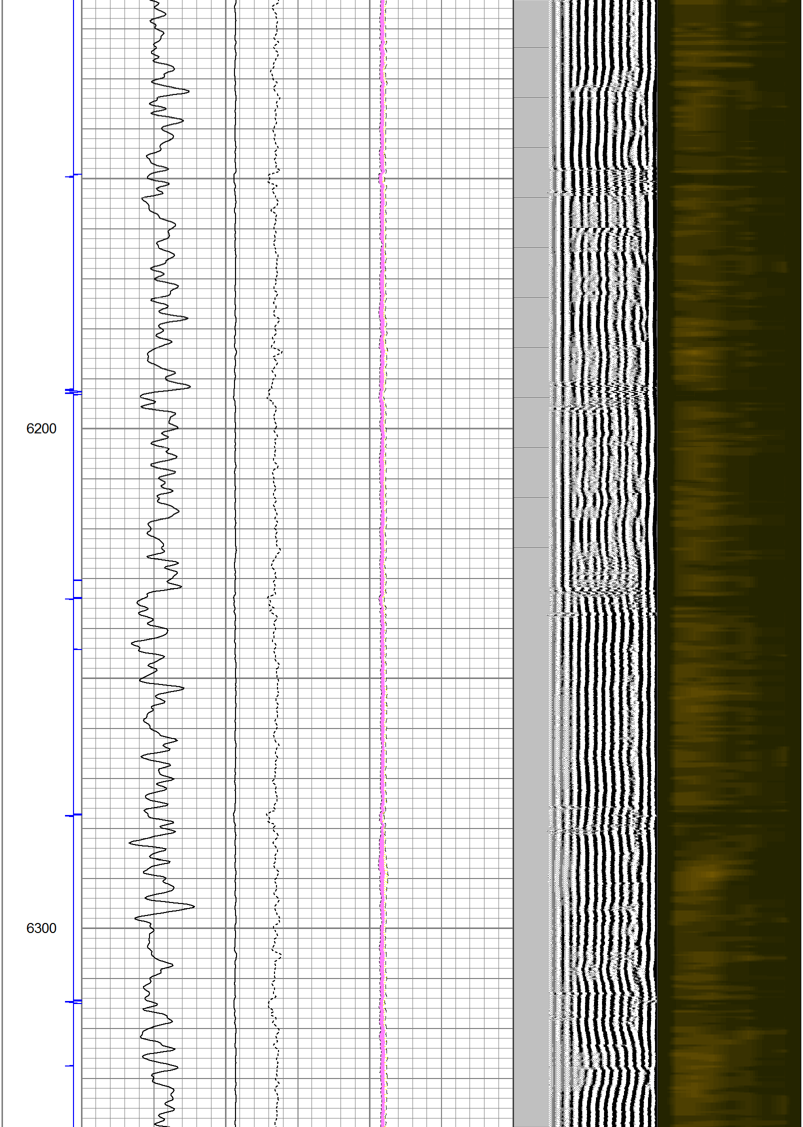
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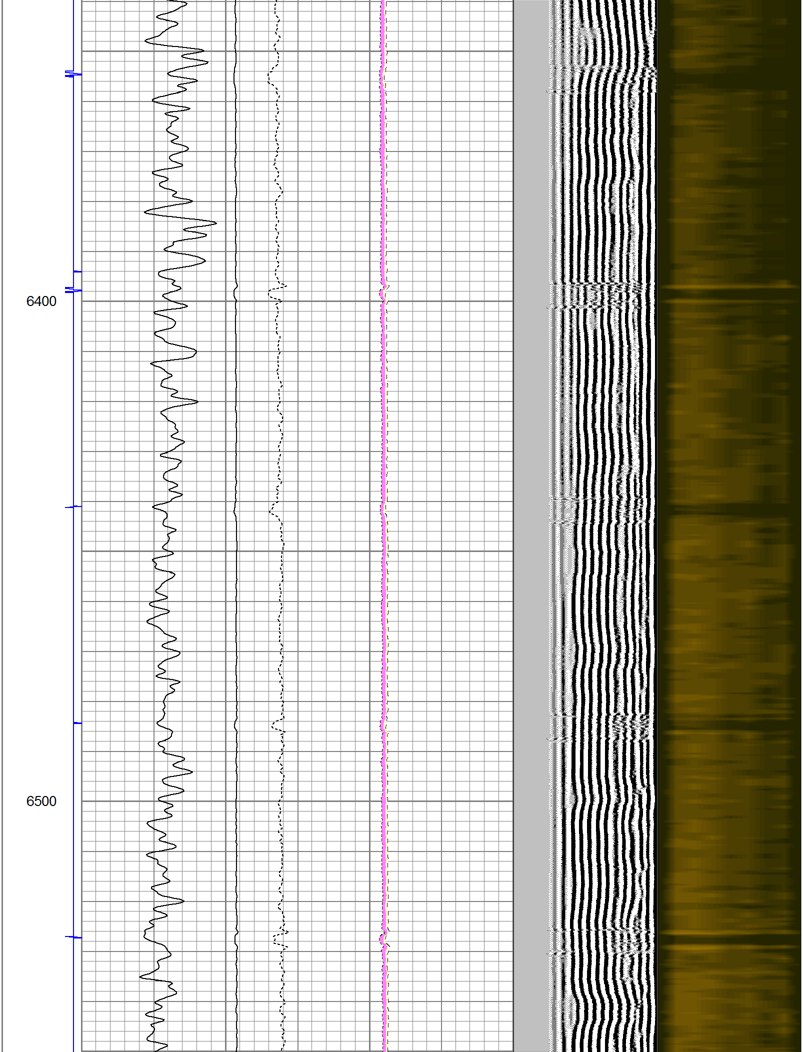
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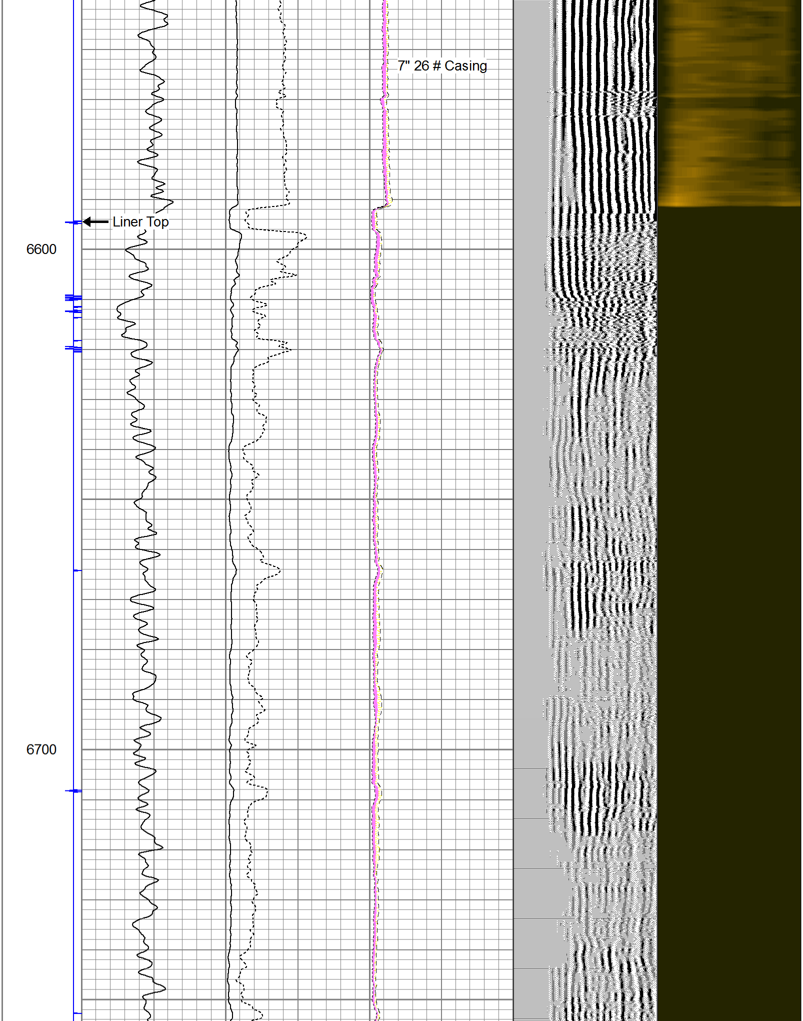
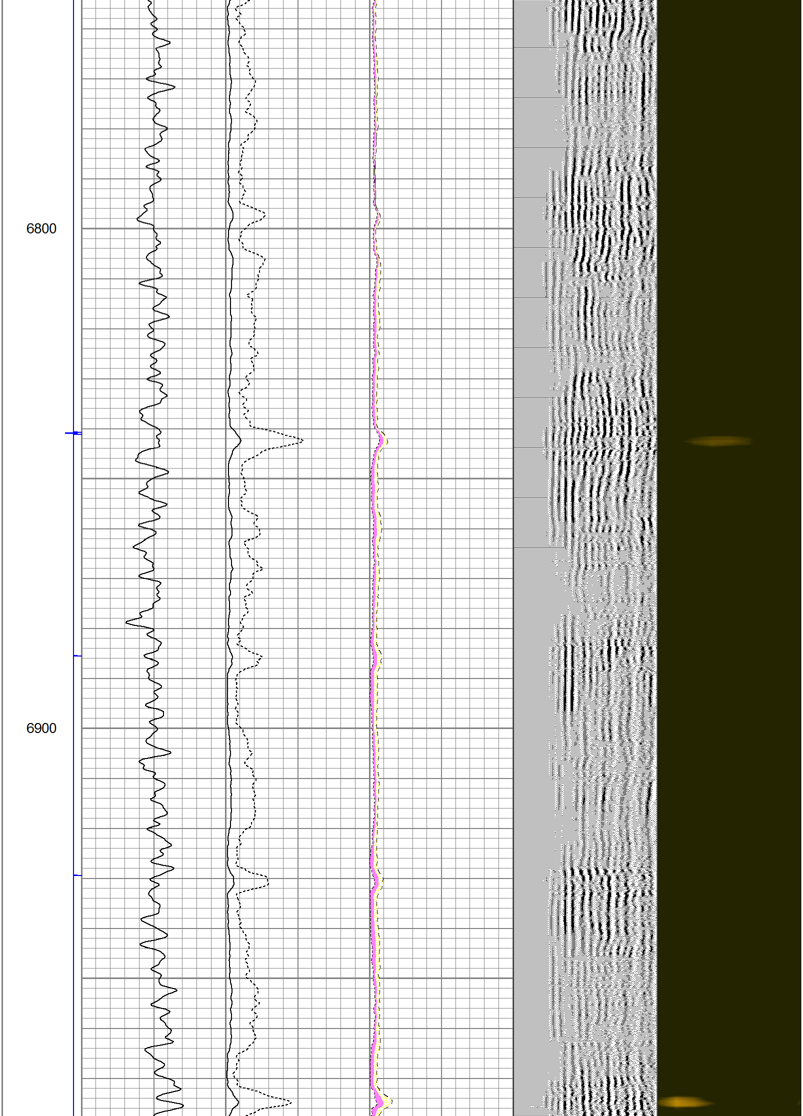

7" 26 # Casing
Liner Top
6600
6700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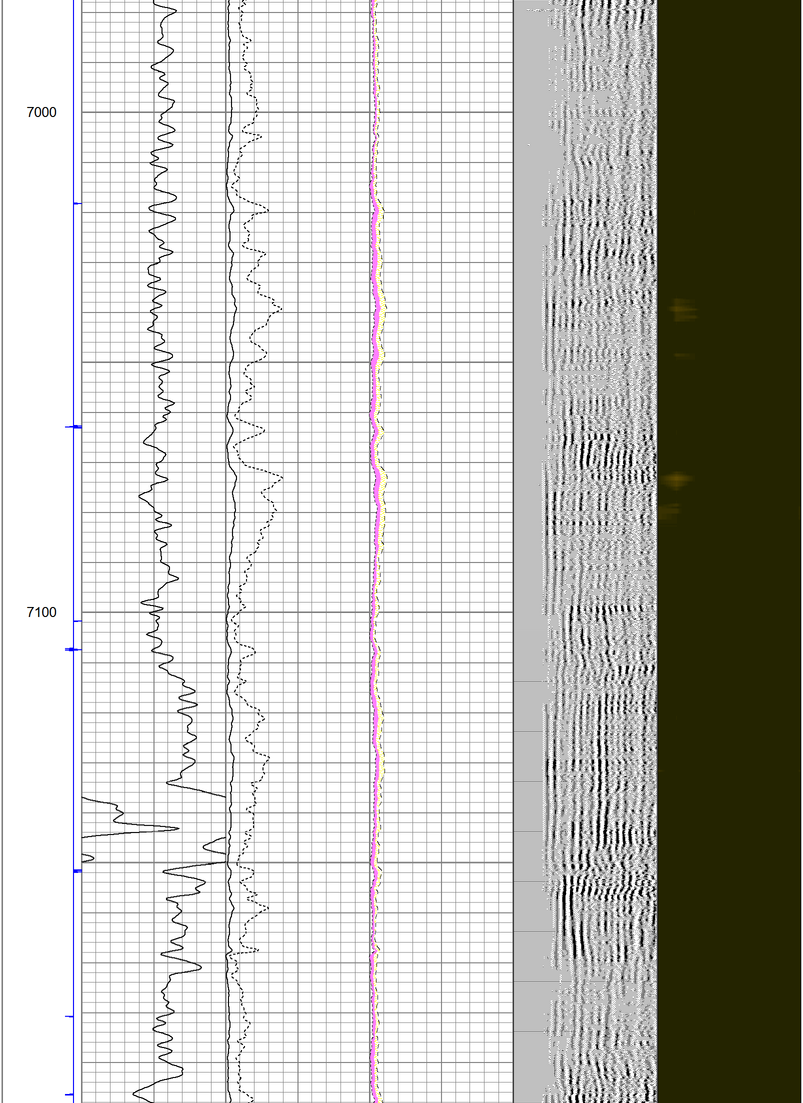
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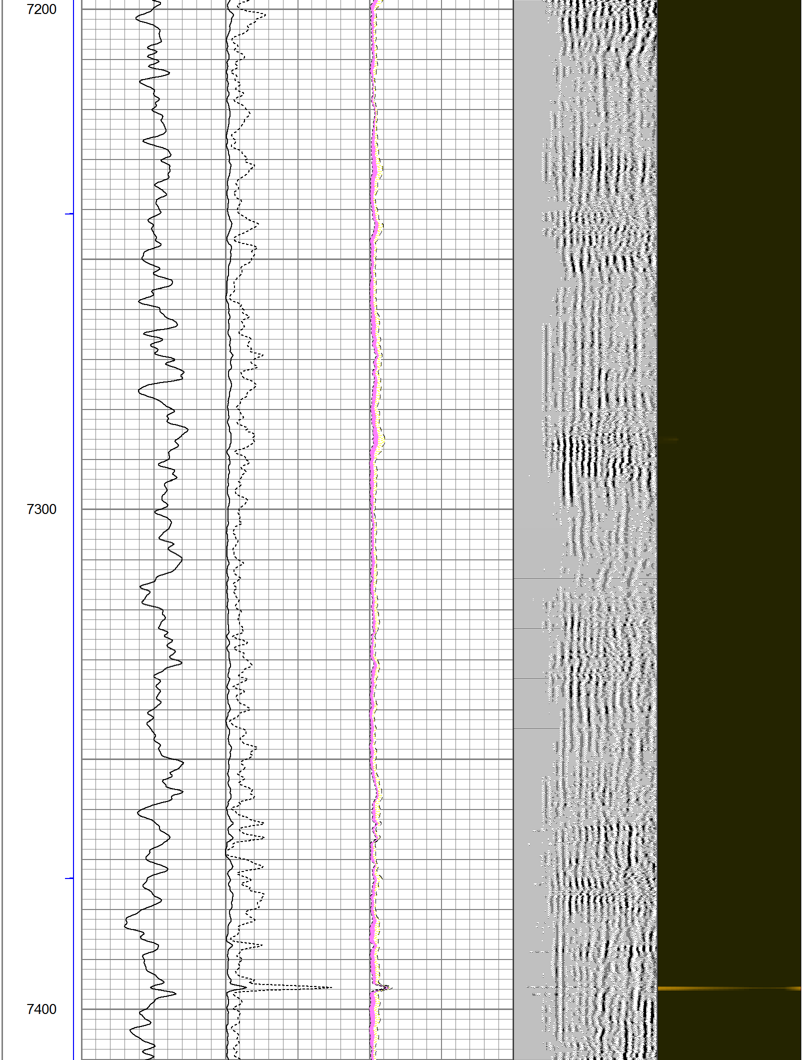
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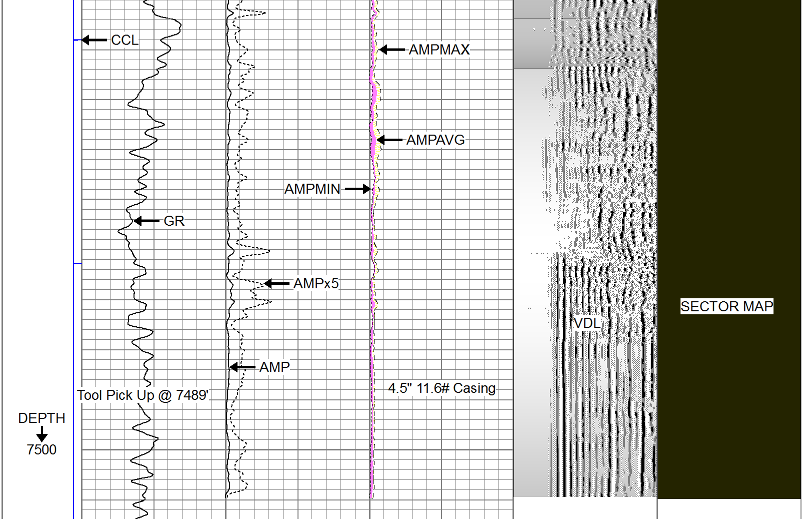
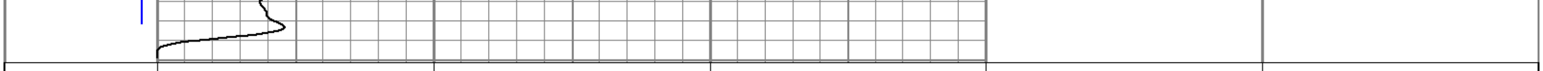

CCL
AMPMAX
AMPAVG
AMPMIN
GR
AMPx5
SECTOR MAP
VDL
AMP
Tool Pick Up @ 7489'
4.5" 11.6# Casing
DEPTH
7500



-9 CCL 1	0 GR (GAPI) 200	0 AMP (mV) 100	0 AMPAVG 150	200 VDL 1200	1 SECTOR MAP 8
		0 AMPx5 (mV) 20	0 AMPMAX 150		15 85
			0 AMPMIN 150		

Calibration Report

Database File: anadarko_pettinger_4ne-18hz_jbgr_log_plug.db
Dataset Pathname: run2/pass3
Dataset Creation: Fri Mar 21 10:48:51 2014 by Log SCH 120430

Gamma Ray Calibration Report

Serial Number:	130608	
Tool Model:	GRCCLTEMP	
Performed:	Sun Jun 13 14:33:21 1993	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Temperature Calibration Report

Serial Number:	130608	
Tool Model:	GRCCLTEMP	
Performed:	Thu Aug 15 08:56:46 2013	
	Reference	Reading
Low Reference:	100.00 degF	6509.65degF
High Reference:	350.00 degF	27350.70degF
Gain:	0.01	
Offset:	21.91	
Delta Spacing	1	

Segmented Cement Bond Log Calibration Report

Serial Number:	Base	
Tool Model:	Probe	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	6850.016	ft

Master Calibration, performed Fri Mar 21 11:29:48 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.063	0.811	2.000	62.165	80.435	-3.078
CAL	0.979	1.023				
5'	0.021	0.880	2.000	62.165	70.084	0.511
SUM						
S1	0.064	0.766	5.000	95.000	128.162	-3.216
S2	0.033	0.804	5.000	95.000	116.840	1.106
S3	0.018	0.817	5.000	95.000	112.695	2.922
S4	0.011	0.821	5.000	95.000	111.009	3.812
S5	0.016	0.823	5.000	95.000	111.489	3.220
S6	0.017	0.813	5.000	95.000	113.019	3.069
S7	0.033	0.794	5.000	95.000	118.190	1.123
S8	0.030	0.793	5.000	95.000	117.933	1.496

Internal Reference Calibration, performed Wed Aug 21 12:08:58 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.979	1.023	1.000	0.000

Air Zero Calibration, performed Tue Mar 04 11:15:55 2014:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

Log Variables

Database:C:\Warrior\Data\anadarko_pettinger_4ne-18hz_jbgr_log_plug.db
Dataset: field/well/run2/pass3

Top - 6596.00 ft

CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV	CASEOD in	BOTTEMP degF	BOREID in
26	62	2	7	215	8.75

6596.00 ft - Bottom

PPT usec	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	CASEOD in	PERFS	TDEPTH ft
0	11.6	81	1	0.08	4.5	0	0

BOTTEMP degF	BOREID in
225	6.25

PIONEER
Pioneer Energy Services

Company	Anadarko Petroleum Corporation
Well	Pettinger 4NE-18HZ
Field	Wattenberg
County	Weld
State	Colorado